



# Role of International Environmental Law in Promoting Sustainable Development in Northeast India

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## 1. Introduction

Northeast India is a unique and ecologically diverse region, home to an array of rich natural resources, vibrant cultures, and diverse ecosystems. Comprising eight states like Arunachal Pradesh, Assam, Nagaland, Manipur, Mizoram, Tripura, Meghalaya, and Sikkim. This region is often referred to as the "Seven Sisters" excluding the State of Sikkim, and the Northeast India is situated at the crossroads of the Indian subcontinent and Southeast Asia. Northeast India is blessed with abundant biodiversity, a variety of ecosystems, including rainforests, wetlands, and alpine regions, and it plays a crucial role in the environmental balance of both India and the broader Asian region.

Northeast India, comprising the eight states of Arunachal Pradesh, Assam, Nagaland, Manipur, Mizoram, Tripura, Meghalaya, and Sikkim, is one of the most ecologically rich and biodiverse regions in the world. The region is home to pristine forests, wetlands, and a variety of unique species, making it crucial to the environmental balance of both India and the greater South Asian region. However, the ecological wealth of Northeast India faces significant threats from deforestation, overexploitation of natural resources, climate change, and unsustainable agricultural practices. Sustainable development, which seeks to balance economic growth with environmental protection and social equity, is thus essential for the region's future.

International environmental law plays a crucial role in guiding and shaping the policies and actions that promote sustainable development in Northeast India. This legal framework, comprised of various international treaties, conventions, protocols, and customary laws, helps address global and regional environmental challenges that directly impact the region. These challenges include biodiversity loss, climate change, water scarcity, and transboundary pollution, which require cooperative solutions at the international, national, and local levels.

However, despite its natural wealth, the region is increasingly facing several environmental challenges. These challenges include deforestation, soil erosion, climate change impacts, loss of biodiversity, and unsustainable resource extraction practices. Sustainable development in this region requires an approach that balances

environmental conservation with economic growth and social development. International environmental law, with its global framework and principles, can play a crucial role in addressing these challenges while promoting sustainable development in Northeast India.

International environmental law encompasses a wide range of treaties, conventions, protocols, and customary practices that govern the protection of the environment on a global scale. These legal instruments set out norms for the protection of natural resources, regulation of transboundary pollution, biodiversity conservation, and the mitigation of climate change, among others. International law emphasizes the need for cooperation among nations to address environmental issues that transcend national borders, such as climate change, biodiversity loss, and transboundary pollution.

Northeast India, being part of a region that is ecologically interconnected with neighbouring countries such as Bangladesh, Bhutan, China, and Myanmar, is particularly affected by cross-border environmental issues. Therefore, international environmental law has the potential to guide and influence the region's environmental governance, particularly in the context of transboundary natural resource management and regional cooperation.

This introduction sets the stage for exploring the various ways in which international environmental law can support and enhance sustainable development in Northeast India. From the adoption of global agreements to the implementation of national policies informed by international norms, the role of international environmental law is pivotal in ensuring that development in this region proceeds in a way that safeguards its unique ecosystems and supports long-term environmental sustainability. The integration of international environmental principles into local governance frameworks can contribute to sustainable land use, effective conservation strategies, and the overall well-being of the communities in Northeast India.

As we delve deeper into the role of international environmental law, we will examine how specific legal frameworks including the United Nations Framework Convention on Climate Change (UNFCCC), the Convention on Biological Diversity (CBD), and the Ramsar Convention can play a vital role in addressing the environmental challenges faced by Northeast India and promoting a sustainable development pathway. Additionally, the impact of regional cooperation through organizations such as the South Asian Association for Regional Cooperation (SAARC) and bilateral agreements between neighbouring countries will also be analysed.

The interplay of international law, national governance, and local environmental initiatives is critical in ensuring that Northeast India can navigate the challenges of rapid urbanization, climate change, and resource depletion, all while preserving its rich natural heritage for future generations. This examination will underscore the importance of both global legal frameworks and local contextual understanding in crafting sustainable solutions for the region's development.

Sustainable development, defined as development that meets the needs of the present without compromising the ability of future generations to meet their own needs, has become a central goal in global environmental governance. International environmental law plays a vital role in guiding countries towards achieving sustainable development. Northeast India, with its unique geographical and cultural characteristics, provides a compelling case for examining the impact of international environmental law on sustainable development.

Sustainable development, defined by the Brundtland Commission in 1987 as development that meets the needs of the present without compromising the ability of future generations to meet their own needs, has become a central tenet of global governance. It encompasses three interrelated dimensions: economic growth, social inclusion, and environmental protection. Achieving sustainable development requires a holistic approach that integrates these dimensions into policy and practice at all levels.

International environmental law, as a subset of international law, provides the legal framework for addressing global environmental issues and promoting sustainable development. This body of law consists of treaties, conventions, protocols, and customary international principles that govern the behaviour of states and other international actors in relation to the environment. Key instruments, such as the United Nations Framework Convention on Climate Change (UNFCCC), the Convention on Biological Diversity (CBD), and the Paris Agreement, set forth obligations and guidelines for states to mitigate environmental impacts and promote sustainability. These international agreements are founded on principles such as the precautionary principle, the polluter pays principle, and the principle of common but differentiated responsibilities, which guide national policies and actions.

Sustainable development has emerged as a critical global objective, aiming to balance economic growth, environmental protection, and social equity. In this context, international environmental law plays a pivotal role in guiding nations towards sustainable practices. Northeast India, with its rich biodiversity, unique cultural heritage, and diverse ecosystems, presents both opportunities and challenges for sustainable development. The region is characterized by its hilly terrains, dense forests, and numerous water bodies, which provide essential resources and services to the local communities. However, Northeast India is also vulnerable to environmental degradation, climate change, and socio-economic disparities, necessitating a robust legal and policy framework to promote sustainable development.

## **2. International Environmental Law: Framework and Principles**

International environmental law is a dynamic and evolving field that addresses a wide range of environmental issues, including climate change, biodiversity conservation, pollution control, and sustainable resource management. It encompasses legally binding agreements, such as treaties and conventions, as well as non-binding instruments, such as declarations and guidelines. The scope of international environmental law extends beyond state borders, recognizing that environmental issues are inherently transboundary and require collective action at the global level.

International environmental law consists of a complex body of treaties, conventions, protocols, and customary international law principles that govern the protection of the environment and the promotion of sustainable development. Key international agreements, such as the United Nations Framework Convention on Climate Change (UNFCCC), the Convention on Biological Diversity (CBD), and the Paris Agreement, provide guidelines and obligations for countries to address global environmental challenges. These agreements are built upon principles such as the precautionary principle, the polluter pays principle, and the principle of common but differentiated responsibilities. These principles are instrumental in shaping national policies and actions, ensuring that environmental protection efforts are equitable and effective.

## 2.1 Framework

Several key international agreements form the cornerstone of international environmental law and have significant implications for sustainable development:

1. **United Nations Framework Convention on Climate Change (UNFCCC):** Adopted in 1992, the UNFCCC establishes a framework for international cooperation to combat climate change. It aims to stabilize greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system. The Convention has been complemented by the Kyoto Protocol and the Paris Agreement, which set specific targets and measures for reducing greenhouse gas emissions.
2. **Convention on Biological Diversity (CBD):** Also adopted in 1992, the CBD focuses on the conservation of biological diversity, the sustainable use of its components, and the fair and equitable sharing of benefits arising from the use of genetic resources. It recognizes the intrinsic value of biodiversity and its critical role in ecosystem functioning and human well-being.
3. **Paris Agreement:** The Paris Agreement, adopted in 2015, builds on the UNFCCC and aims to limit global temperature rise to well below 2 degrees Celsius above pre-industrial levels, with efforts to limit the increase to 1.5 degrees Celsius. It emphasizes nationally determined contributions (NDCs) and provides a framework for climate adaptation, finance, and technology transfer.
4. **Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES):** CITES, adopted in 1973, regulates the international trade in endangered species to ensure that it does not threaten their survival. It provides a mechanism for monitoring and controlling the trade of wildlife and plant species through a system of permits and certificates.

## 2.2.Principles

The implementation of international environmental law is guided by several key principles:

1. **Precautionary Principle:** This principle asserts that the lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation. It emphasizes proactive action to mitigate potential environmental harms.
2. **Polluter Pays Principle:** According to this principle, those who cause environmental damage should bear the costs of managing and mitigating that damage. It promotes accountability and incentivizes pollution prevention.
3. **Common but Differentiated Responsibilities (CBDR):** This principle recognizes that while all countries share the responsibility for addressing global environmental challenges, they have different capabilities and levels of development. It calls for differentiated obligations and support for developing countries in their efforts to achieve sustainable development.

## 3. Environmental and Geographical Characteristics

Northeast India is known for its rich biodiversity, diverse ecosystems, and cultural heritage. The region's topography includes hilly terrains, dense forests, and numerous water bodies. These natural resources are crucial for the livelihoods of local communities but are also vulnerable to environmental degradation. The region's topography includes the Eastern Himalayas, the Patkai and Naga Hills, the Brahmaputra and Barak river valleys, and numerous wetlands and grasslands. These varied ecosystems support a wide range of flora and fauna, many of which are endemic to the region.

The region's climate is influenced by the monsoon, which brings heavy rainfall during the summer months. However, climate change has led to alterations in rainfall patterns, resulting in both excessive rainfall and prolonged dry spells. These changes have exacerbated the occurrence of floods, landslides, and droughts, posing significant risks to the region's environment and communities.

#### **4. Socio-Economic Conditions**

The socio-economic conditions in Northeast India are shaped by the region's unique cultural heritage and traditional livelihoods. The population is predominantly rural, with agriculture and allied activities being the main sources of livelihood. The region is known for its diverse ethnic communities, each with its own distinct language, customs, and practices.

Despite its natural wealth, Northeast India faces several socio-economic challenges, including high poverty rates, limited infrastructure, inadequate access to education and healthcare and dependency on agriculture, add complexity to the region's sustainable development efforts. The region's economic development is hindered by its geographical isolation and lack of connectivity with the rest of the country. These factors contribute to the vulnerability of local communities to environmental and economic shocks.

#### **5. Climate Change and UNFCCC**

Northeast India is highly vulnerable to the impacts of climate change, including changing rainfall patterns, rising temperatures, and increased frequency of natural disasters such as floods and landslides. These changes threaten not only the environment but also the livelihoods of the region's populations, particularly those dependent on agriculture, forests, and water resources.

The United Nations Framework Convention on Climate Change (UNFCCC), an international treaty aimed at combating global warming and reducing greenhouse gas emissions, plays a significant role in shaping the climate policies of nations. India, as a party to the UNFCCC, is bound by its commitments to mitigate and adapt to climate change. Northeast India's participation in regional climate change actions under the national framework of the UNFCCC can guide sustainable practices in sectors such as agriculture, forestry, and water management, ensuring that local communities are resilient to climate change.

The Paris Agreement, adopted under the UNFCCC, specifically aims to limit global temperature rise and enhance climate resilience, with specific provisions for developing countries like India. The implementation of climate adaptation and mitigation strategies, supported by international climate financing mechanisms, can help Northeast India mitigate the adverse effects of climate change while promoting sustainable development.

## 6. Biodiversity Conservation and CBD

Northeast India is one of the world's biodiversity hotspots, with a vast array of flora and fauna. However, rapid deforestation, habitat destruction, and overexploitation of natural resources have led to significant threats to biodiversity. To protect this rich biodiversity, international legal frameworks such as the Convention on Biological Diversity (CBD) play a vital role. The CBD, which India ratified in 1994, provides guidelines for the conservation of biodiversity, sustainable use of biological resources, and the equitable sharing of benefits arising from the utilization of genetic resources.

By aligning regional conservation strategies with the CBD's objectives, Northeast India can strengthen its efforts to protect its unique ecosystems, such as the Eastern Himalayas and the Brahmaputra River Basin. This involves implementing biodiversity conservation programs, establishing protected areas, promoting sustainable land-use practices, and working with local communities to safeguard indigenous species and traditional knowledge.

Moreover, the Nagoya Protocol, which is an extension of the CBD, provides a framework for the fair and equitable sharing of benefits arising from the use of genetic resources. This protocol can be instrumental in ensuring that Northeast India's indigenous communities benefit from the sustainable use of the region's rich biodiversity.

## 7. Transboundary Environmental Cooperation

Northeast India shares borders with several countries, including Bangladesh, Bhutan, China, and Myanmar. Environmental issues such as river management, pollution control, and biodiversity conservation often transcend national borders and require regional cooperation. International environmental law provides a framework for cooperation between neighbouring countries to address these transboundary issues.

For example, the management of the Brahmaputra River, which flows through several countries in the region, is a critical issue. International environmental law frameworks that promote cooperation in managing shared water resources can help ensure that the river is used sustainably, and its ecosystem is protected for future generations. India can engage with its neighbours through bilateral or multilateral agreements on water management, pollution control, and conservation efforts.

Regional organizations such as the South Asian Association for Regional Cooperation (SAARC) also offer a platform for environmental collaboration, fostering dialogue and cooperation on shared environmental challenges. In this context, international environmental law can play a significant role in facilitating cross-border collaboration and developing regional solutions for sustainable development.

## 8. National and Regional Implementation of International Environmental Law

India, as a party to various international environmental agreements, has a responsibility to implement these obligations at the national level. The Indian government has enacted several laws and policies that align with international environmental standards, such as the Environment Protection Act, 1986, the Wildlife Protection Act, 1972, and the Forest Conservation Act, 1980. In Northeast India, these laws are complemented by state-

specific policies and initiatives aimed at promoting sustainable development. For example, the states of Assam, Meghalaya, and Manipur have developed State Action Plans on Climate Change (SAPCCs), which outline strategies for climate mitigation and adaptation in line with the objectives of the UNFCCC and the Paris Agreement.

## 9. Water Resource Management and the Ramsar Convention

Water is a critical resource for the people and ecosystems of Northeast India. The region is home to several important wetlands, including the Kaziranga National Park and the Loktak Lake, both of which are designated Ramsar sites under the Ramsar Convention on Wetlands of International Importance. These wetlands provide vital ecosystem services such as water filtration, flood control, and support for local livelihoods.

The Ramsar Convention encourages the sustainable use and conservation of wetlands. By adhering to this international treaty, India can ensure the protection and sustainable management of its wetlands in Northeast India. This includes promoting the restoration of degraded wetlands, implementing sustainable water management practices, and integrating wetland conservation into broader development and climate adaptation strategies.

International support for wetland conservation through the Ramsar Convention can also lead to the allocation of funds for restoration projects and the promotion of ecotourism as a sustainable economic activity, benefiting both local communities and the environment.

## 10. Sustainable Development Goals (SDGs)

The United Nations' Sustainable Development Goals (SDGs), adopted in 2015, provide a global framework for achieving a sustainable and inclusive future by 2030. SDG 15, which focuses on life on land, and SDG 13, which addresses climate action, are particularly relevant to Northeast India. These goals call for the sustainable management of ecosystems, the preservation of biodiversity, and the implementation of strategies to combat climate change.

International environmental law can guide the region in achieving these SDGs by providing a legal framework for sustainable development policies. The adoption of policies based on the SDGs, such as promoting clean energy, enhancing forest conservation, and improving environmental governance, will ensure that the development of Northeast India is both inclusive and sustainable.

## 11. Relevance to Northeast India

Northeast India, comprising eight states—Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim, and Tripura—presents a unique case for examining the role of international environmental law in promoting sustainable development. This region is characterized by its rich biodiversity, diverse ecosystems, and distinct cultural heritage. The geographical features include hilly terrains, dense forests, and numerous water bodies, which provide essential resources and services to the local communities. The region is home to several biodiversity hotspots, including the Eastern Himalayas and Indo-Burma region, making it a critical area for conservation efforts.

However, Northeast India faces significant environmental challenges, including deforestation, land degradation, water scarcity, and the impacts of climate change. These challenges are compounded by socio-economic factors such as high poverty rates, dependence on agriculture, and limited infrastructure. The region's strategic location, bordered by China, Bhutan, Myanmar, and Bangladesh, also adds to the complexity of environmental governance.

Given these challenges, the implementation of international environmental law is crucial for promoting sustainable development in Northeast India. The region's unique environmental and socio-economic context necessitates tailored legal and policy frameworks that align with international principles and commitments. By examining the role of international environmental law in this region, we can gain insights into the effectiveness of global environmental governance and identify best practices for sustainable development.

The application of international environmental law to Northeast India is critical for addressing the region's environmental and developmental challenges. The region's fragile ecosystems, which include forests, wetlands, and river systems, are under significant threat from deforestation, pollution, and unsustainable agricultural practices. International legal frameworks offer a foundation for implementing conservation measures, promoting sustainable land use, and protecting biodiversity. For example, the CBD promotes the conservation and sustainable use of biological resources, which is particularly relevant to the biodiversity-rich areas of Northeast India.

## 12. Role of Indigenous Communities

Indigenous communities in Northeast India play a vital role in the region's sustainable development. These communities possess traditional knowledge and practices that are inherently sustainable and adaptive to local environmental conditions. International instruments such as the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP) and the Convention on Biological Diversity recognize the importance of involving indigenous peoples in environmental governance. In Northeast India, integrating traditional knowledge with modern scientific approaches can enhance the effectiveness of conservation efforts and promote sustainable livelihoods for indigenous communities.

## 13. Challenges and Opportunities

Despite the progress made in promoting sustainable development through international environmental law, several challenges persist in Northeast India. These include inadequate enforcement of environmental regulations, limited financial resources, and conflicts between development objectives and environmental protection. Additionally, the region's socio-political complexities, such as ethnic tensions and insurgency, pose challenges to implementing sustainable development initiatives.

However, these challenges also present opportunities for innovation and collaboration. Strengthening the capacity of local institutions, enhancing community participation, and leveraging international funding mechanisms can significantly improve the region's environmental governance. International cooperation and partnerships with global institutions can provide the necessary support and resources to address the region's unique challenges and promote sustainable development.

## 14. Case Studies and Success Stories

Several case studies from Northeast India highlight the positive impact of international environmental law on sustainable development. For instance, the “Living Root Bridges” of Meghalaya, recognized by UNESCO as a sustainable practice, exemplify the integration of traditional knowledge with environmental conservation. These bio-engineered bridges, made from the roots of rubber trees, provide a sustainable solution to the region’s transportation challenges and contribute to biodiversity conservation.

Another notable example is the conservation of the Kaziranga National Park in Assam, a UNESCO World Heritage Site. International funding and technical assistance have played a crucial role in protecting this biodiversity-rich area, home to endangered species such as the one-horned rhinoceros. The park’s conservation efforts demonstrate the effectiveness of international cooperation in achieving sustainable development goals.

## 15. Future Directions

Looking ahead, the role of international environmental law in promoting sustainable development in Northeast India will continue to evolve. Emerging global frameworks, such as the United Nations Sustainable Development Goals (SDGs) and the Post-2020 Global Biodiversity Framework, provide new opportunities for advancing sustainable development in the region. These frameworks emphasize the interconnectedness of environmental, social, and economic objectives, encouraging a holistic approach to sustainable development.

To fully realize the potential of international environmental law, it is essential to enhance the region’s institutional capacity, foster multi-stakeholder partnerships, and ensure the active participation of local communities. Policymakers and practitioners must prioritize the integration of international principles into local governance structures, ensuring that sustainable development efforts are inclusive, equitable, and culturally sensitive.

## Conclusion

In conclusion, international environmental law plays a crucial role in promoting sustainable development in Northeast India. By providing a legal and policy framework for addressing environmental challenges, international agreements guide national, fostering regional cooperation and action towards sustainability and supporting the conservation of biodiversity.

The integration of traditional knowledge, community participation, and international cooperation is key to achieving sustainable development goals in the region. As Northeast India continues to navigate the complexities of environmental governance, the principles and frameworks of international environmental law will remain indispensable tools in the pursuit of a sustainable and resilient future.

The adoption of international treaties and conventions, such as the UNFCCC, CBD, Ramsar Convention, and the SDGs, provides legal tools to address the complex and interconnected environmental issues facing the region. By integrating these international frameworks into national and local policies, Northeast India can chart a path toward sustainable development that preserves its rich natural resources, enhances the resilience of its communities, and contributes to global environmental goals.

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